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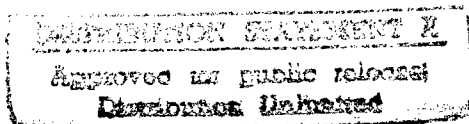
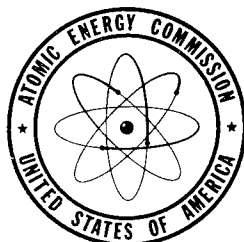
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TEST AND EVALUATION OF VIBRATOR  
POWER SUPPLY

By  
Robert T. Graveson

August 27, 1951

Health and Safety Division  
New York Operations Office



Technical Information Service, Oak Ridge, Tennessee

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# INSTRUMENTATION

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TEST AND EVALUATION OF VIBRATOR POWER SUPPLY

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ABSTRACT

Results of Tests on the Victoreen Vibrator Power Supply  
and performance curves given.

Description of Unit:

A sealed, compact unit for producing B plus and high voltage for a survey meter. This unit, in conjunction with three 1.5 volt batteries, could replace three 300 volt and one  $67\frac{1}{2}$  (or 45 volt) batteries.

Physical Specifications:

Dimensions:  $2\frac{1}{4}$ "x  $2-1/8$ "x  $2-7/8$ " ( $3-5/8$ " including studs)

Weight: 1 pound

Mounting: Four studs on top and four on bottom

Connection: Four fusite terminals on bottom

Remarks: The can is soldered closed forming an air tight seal.

Electrical Specifications:

Nominal ratings: Input + 4.5 to 3.3 volts input d.c.  
Output + 900 volts d.c.  
+ 55 volts d.c.

Figures one and two show the operation of the unit under varying conditions of load and input voltage.

The unit operates off three  $1\frac{1}{2}$  volt batteries and has a drain of 63 milliamps throughout the load range.

Discussion of Results:

This unit is convenient and should be applicable to any application requiring high voltage at low current and a B plus voltage for a trigger pair or amplifier. While this unit was probably designed for GM tube circuits, it could be applied to a photomultiplier. The input requires three  $1\frac{1}{2}$  volt batteries, and unless Mallory mercury cells are used these require a considerable amount of space.

The unit is sealed so that service would be difficult. It could be used as a disposable unit if its price is reasonable.

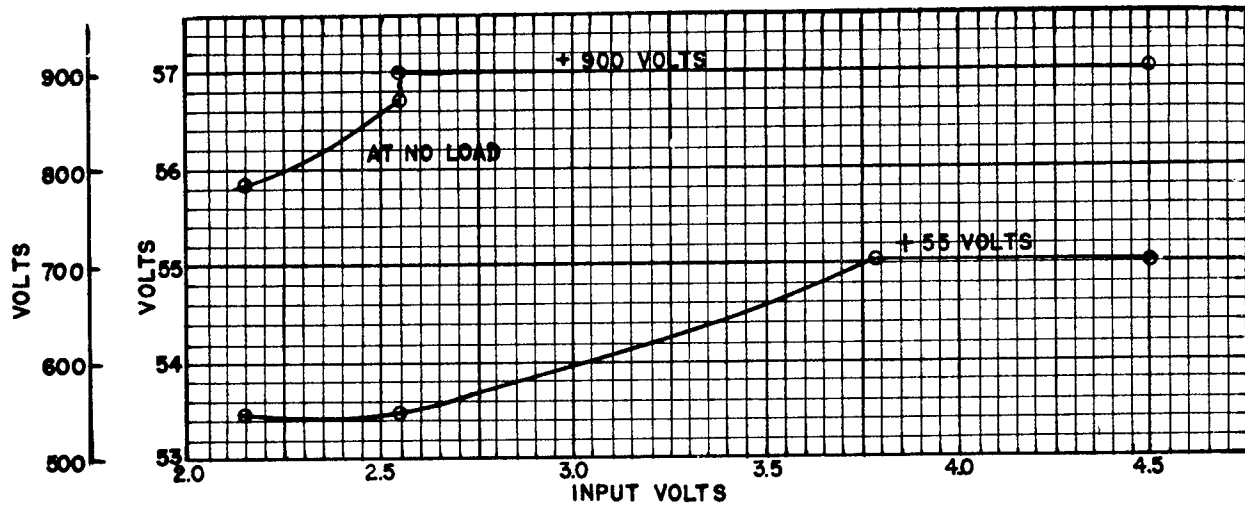


Fig. 1.

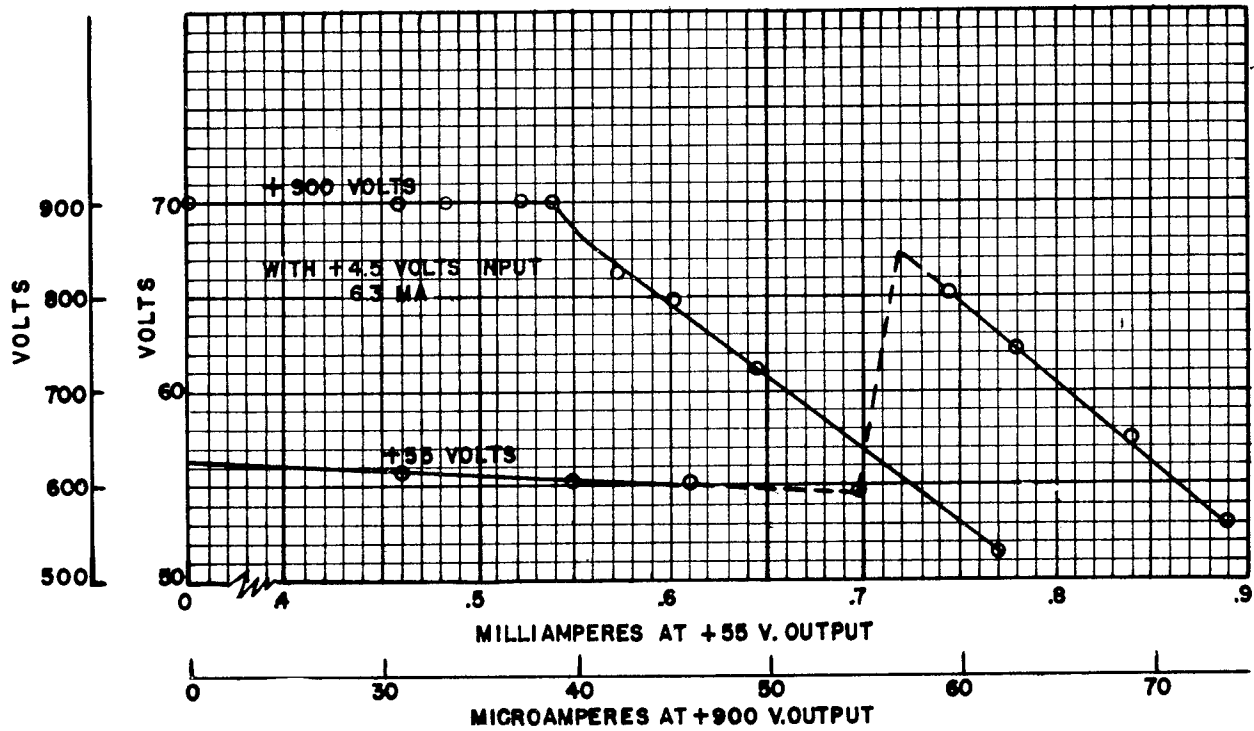


Fig. 2.